

Claims:

1. A hot melt adhesive comprising
a radial block copolymer (PS-PI-PB)_nX wherein PS is polystyrene, PI is polyisoprene and PB is polybutadiene, X is the residue of a multifunctional coupling agent used in the production of the radial block copolymer, and n is equal to or greater than 3 and represents the number of PS-PI-PB arms appended to X,
a linear block copolymer, and
a tackifying resin,
wherein, based on the weight of the adhesive composition, the radial block copolymer is present in amounts of from about 15 wt % to about 35 wt %, the linear polymer is present in amounts up to about 20 wt %, the tackifying resin is present in amounts of from about 30 to about 70 wt %.
2. The adhesive of claim 1 in which the number average molecular weight of each arm of said radial block copolymer is from about 30,000 to about 95,000.
3. The adhesive of claim 2 wherein the radial block copolymer has a di-block percentage of less than about 25 %.
4. The adhesive of claim 3 wherein the radial block copolymer has a di-block percentage of less than about 20 %.
5. The adhesive of claim 2 wherein the styrene content of the radial block copolymer is from about 25 wt % to about 50 wt % .
6. The adhesive of claim 1 wherein said linear block copolymer is styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-isobutylene styrene, styrene-b-ethylene/butylene-b-styrene, and/or styrene-b-ethylene/propylene-b-styrene.

7. The adhesive of claim 1 wherein n between about 3 and about 6.
8. The adhesives of claim 1 further comprising a wax, said wax being present in an amount of less than about 5 wt %
9. The adhesive of claim 1 further comprising a liquid plasticizer, said plasticizer being present in amounts of less than about 20 wt %.
10. An article of manufacture comprising a hot melt adhesive and a substrate, wherein
said hot melt adhesive comprises
a radial block copolymer $(PS-PI-PB)_nX$ wherein PS is polystyrene, PI is polyisoprene and PB is polybutadiene, X is the residue of a multifunctional coupling agent used in the production of the radial block copolymer, and n is equal to or greater than 3 and represents the number of PS-PI-PB arms appended to X,
a linear block copolymer, and
a tackifying resin,
wherein, based on the weight of the adhesive composition, the said radial block copolymer is present in amounts of from about 15 wt % to about 35 wt %, the linear polymer is present in amounts up to about 20 wt %, the tackifying resin is present in amounts of from about 30 to about 70 wt %, and
said substrate comprises an elastomeric fiber.
11. The article of claim 10 which is a disposable elastic article.
12. The article of claim 11 which is a diaper.
13. A process for bonding a first substrate to a second substrate comprising applying to at least the first substrate a hot melt adhesive, bringing at least the second substrate in contact with

the adhesive present on the first substrate whereby said first and second substrates are bonded together,

wherein at least one of said first and or second substrate is an elastomeric polyurethane fiber,

and

wherein the hot melt adhesive comprises

a radial block copolymer $(PS-PI-PB)_nX$ wherein PS is polystyrene, PI is polyisoprene and PB is polybutadiene, X is the residue of a multifunctional coupling agent used in the production of the radial block copolymer, and n is equal to or greater than 3 and represents the number of PS-PI-PB arms appended to X,

a linear block copolymer,

a tackifying resin,

and, optionally, a liquid plasticizer and/or wax,

wherein, based on the weight of the adhesive composition, the radial block copolymer is present in amounts of from about 15 wt % to about 35 wt %, the linear polymer is present in amounts up to about 20 wt %, the tackifying resin is present in amounts of from about 30 to about 70 wt %, the liquid plasticizer is present in amounts of 0 to less than about 20 wt %, and the wax is present in amounts of 0 to less than about 5 wt %.

14. The process of claim 13 wherein at least one substrate is a nonwoven substrate.